

**JOB DESCRIPTION  
MURFREESBORO WATER AND SEWER DEPARTMENT  
ENGINEER**

**1. JOB TITLE: ENGINEER**

- 2. DEFINITION:** This is a staff position providing professional engineering services to the Department. The position reports directly to the Engineering Manager. All employees are responsible to the Director and City Manager. This position is classified as Exempt for purposes of the Fair Labor Standards Act, as having infrequent occupational exposure to bloodborne pathogens, and as Non-Safety Sensitive. The employee will be subject to pre-employment, post accident, reasonable suspicion, return to duty and follow-up drug and alcohol testing.

**3. EQUIPMENT/JOB LOCATION**

- a. This position requires the use of personal computers, theodolites and survey equipment, telephones, radios, standard office equipment and an automobile.
- b. The primary job location is at the engineering offices of the Water and Sewer Department. Periodic field work will be required, and the employee may be exposed to inclement weather and biological and physical hazards associated with water and sewer line construction and repair. All City vehicles and facilities are smoke-free locations.

**4. ESSENTIAL FUNCTIONS OF THE JOB:**

- a. Applies engineering principles and practices for the planning, design and operation of the municipal water and sewerage system.
- b. Develops and maintains water and sewer line engineering and design standards.
- c. Performs field engineering surveys and keep field survey notes.
- d. Reviews plats and plans and submits reports to the Murfreesboro Planning Director for consideration by the City Planning Commission.
- e. Reviews and approves water line design plans submitted for subdivisions pursuant to the plan approval authority granted to the state regulatory authority.
- f. Reviews and approves sewer line plans for subdivisions pursuant to the plan approval authority granted by the state regulatory authority.
- g. Determines the availability of water and sewer to specific subdivisions and/or lots.
- h. Makes recommendations for capital improvements for inclusion in the fiscal budget.
- i. Represents the Water and Sewer Department before the Murfreesboro Planning Commission.
- j. Coordinates and reviews surveys to prepare easements and to establish control of line and grade in the construction of water lines and sanitary sewers.
- k. Reviews and recommends changes to the Murfreesboro City Code as related to water and sewer issues.
- l. Prepares special project reports.
- m. Reviews and approves hydraulic calculations for extension of water and sewer lines and sewer line cut sheets.
- n. Reviews contract change orders and pay requests for water and sewer projects.

- o. Assists in the development of hydraulic computer models of the water distribution system. Supervises and collects field data for calibration and verification of the model.
- p. Sizes water service line connections and meters.

## **5. ADDITIONAL EXAMPLES OF WORK PERFORMED:**

Perform other duties and special projects as assigned.

## **6. REQUIRED KNOWLEDGE, SKILLS AND ABILITIES:**

- a. College degree in civil or environmental engineering and five years of responsible experience in water and sewer engineering.
- b. Registration as a professional civil or environmental engineer in the State of Tennessee.
- c. Must have legal authorization to work in the United States.
- d. Must be able to communicate effectively in English, orally and in writing.
- e. Must have a driver's license valid in the State of Tennessee and the ability to safely operate a motor vehicle.
- f. Must maintain automobile liability insurance on vehicle used to perform job duties for City of at least \$100,000 single limit, or such other amount as citywide policies may require in the future.
- g. Knowledge of standard engineering principles and practices and the State of Tennessee design standards for water and sewer lines.
- h. The ability to perform field engineering surveys and keep field survey notes, and prepare property line surveys.
- i. Ability to learn engineering software systems is required. Knowledge of software systems, including Watercadd water distribution modeling and Integraph applications, is preferred.
- j. Working knowledge of land surveying, with registration as a professional land surveyor preferred.
- k. Must be able to make frequent and extended trips to construction sites, improved and unimproved, in all weather conditions.
- l. Must be capable of independent judgment.
- m. Must demonstrate good temperament, judgment and human relation skills and be able to communicate with developers, contractors, engineers, surveyors and others of the public, some of whom at times may be irate and unreasonable.
- n. Must be able to report for work and perform assigned duties for the entire normal business day, to attend evening meetings and conferences.

Exempt  
Safety Sensitive  
August 29, 2005